



BRECCIA PIPE AND GEOLOGIC MAP OF THE SOUTHEASTERN HUALAPAI INDIAN RESERVATION AND VICINITY, ARIZONA
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- Collapse feature classification*
- B Brecciated rock observed in the field.
 - M Mineralized rock (either visible copper minerals or surface radiation greater than two and a half times background) present.
 - C1 Concentrically inward-dipping beds and visible alteration (bleaching or iron oxide staining).
 - C2 Concentrically inward-dipping beds; no visible alteration.
 - C3 Visible alteration; no visible dipping beds.
 - C4 Distinctly circular feature, either due to vegetation or topography; no visible alteration or dipping beds.
 - C7 Questionable. A circular feature appears to be present, but with no obvious dipping beds, alteration, vegetation change or topography delineation.
 - B Breccia pipes mapped by Huntoon and Billingsley (1981), Billingsley and Huntoon (1983), and this map. Outline of pipe is shown by a solid dot and not mapped to scale.
 - C Collapse structures mapped by Huntoon and Billingsley (1981), Billingsley and Huntoon (1983), and this map. Outline of pipe is shown by a solid dot and not mapped to scale.
 - S Sink holes.
 - Cu Copper prospect; may or may not be a breccia pipe.
- *Where a collapse structure was too small for one of the above patterns to be placed within its boundaries on the geologic map, the labels shown below were used instead.

- Map symbols
- CONTACT
 - FAULT—bar and ball on down thrown side; dashed where inferred, dotted where approximately located; R on reverse faults—45: approximate displacement in feet.
 - STRIKE AND DIP OF BEDS
 - MONOCLINE—Axis located approximately midway between antiform and synclinal hinges of folds. Length of arrow indicates approximate map distance between fold hinges; dotted where concealed, dashed where fold dies out.
 - SYNCLINE—Trace of axial plane and direction of plunge; dashed where fold dies out; dotted where concealed.
 - ANTICLINE—Trace of axial plane and direction of plunge; dashed where fold dies out; dotted where concealed.
 - M3 UPPER AMPHIBOLITE FACIES
 - STRIKE AND DIP OF FOLIATION N—67: dip of foliation in degrees.
 - RIVER ANTICLINES—Axial crests follow course of tributary canyons or the Colorado River; parentheses bracket individual anticlines.
 - VOLCANIC VENTS

